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


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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,290	08/28/2003	Curt Munz	71082	6681
23872	7590	04/15/2004	EXAMINER	
MCGLEW & TUTTLE, PC 1 SCARBOROUGH STATION PLAZA SCARBOROUGH, NY 10510-0827			YAN, REN LUO	
			ART UNIT	PAPER NUMBER
			2854	
DATE MAILED: 04/15/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/650,290	<b>Applicant(s)</b> MUNZ ET AL	
	<b>Examiner</b> Ren L Yan	<b>Art Unit</b> 2854	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3,5, 6 and 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Roch et al(5,138,667). The patent to Roch et al teaches process and device for the position of at least on registration mark on a web to be printed as claimed including the use of a PC 20, interface 21 for obtaining prepress image data to be printed and memory 28 and circuit generator 29 for creating the virtual reference registration mark 13 with reference signs 15a-15e and determining the position data of the registration mark 1 desired to be printed on the web. See Figs. 1-6 and columns 3-5 in Roch et al for details. With respect to claims 3 and 11, sensors 16 and 23 Roch et al are positioned over the registration mark 1 so as to detect the position of the printed registration mark 1 on the web. With respect to claims 5, 6 and 8, the position of the printed registration mark 1 on the web is detected by sensors 16 and 23 and then compared with the position of the virtual reference registration mark 13 to as to determine the deviation of the printed registration mark 1 in a X and Y coordinates based on the position data and control the print production of the web. Regarding claim 9, since the registration mark is printed with ink, it is believed that the position data for the printed registration mark determined includes the ink coverage data for the registration mark as recited.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roch et al in view of Takahashi et al(5,444,525). Roch et al teaches all that is claimed except that the position of the registration mark is not used to determine the point in time of the detection of the mark. The patent to Takahashi et al teaches in a printer with image printing timing control the conventional use of sensors 45 for detecting the registration mark 43 and the point in time of the mark detection is utilized to calculate the mal-register rates of the respective color images printed. See column 23, lines 18-37 in Takahashi et al for example. It would have been obvious to those having ordinary skill in the art to provide the printing device of Roch et al with the capability of determining the point in time of the registration mark detection as taught by Takahashi et al in order to more effectively control the rate of mis-registration during the printing operation.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roch et al in view of Kawakami et al(5,613,261). Claims 7 call for the determination of the degree of soiling of the sensors without specifying the type of sensors used in the process. Assuming the sensors used are similar to the cameras used in the Roch patent which has a lens with a light reflective surface. Accordingly, Roch et al teach the sensors as claimed except for the determination of the degree of soiling of the sensors. Kawakami et al teach to determine the degree of soiling of a light reflective floor surface using a light emitter 51 and a light receiver 52 to sense the light reflected by the floor surface and then compare the output with reflectivity data previously stored in memory. See column 4, lines 35-56 in Kawakami et al for example. It would have been obvious to one of ordinary skill in the art to provide the process of Roch et al with the capability of

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determining the degree of soiling of the sensors used in the process so as to ensure accurate detection of the printed registration mark and the continuous printing quality.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ren L Yan whose telephone number is 571-272-2173. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on 571-272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ren L Yan  
Primary Examiner  
Art Unit 2854

Ren Yan  
April 12, 2004